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FINANCIAL SECTOR DEVELOPMENTS AND ECONOMIC PERFORMANCE: THE JAMAICA EXPERIENCE

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Financial Sector Developments and Economic Performance in Jamaica

(1985-1995)

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Table of Contents

FINANCIAL SECTOR DEVELOPMENTS AND ECONOMIC PERFORMANCE IN JAMAICA
1985-1995

> *"The central problem of economic development is to understand the process by which a community which was previously saving and investing 4-5 per cent of national income or less converts itself into an economy where voluntary savings is running at about 12-15 per cent or more."*
>
> *Nobel Laureate Sir Arthur Lewis*

1.0 INTRODUCTION

The above quotation highlights the role of increased savings in the development process of any economy. Following the classical tradition Lewis intoned that *"Increased savings is the central problem* (of economic development) *because the central fact about economic development is rapid capital accumulation."*[1]

Economic growth is dependent on two factors, increased accumulation of physical capital and increased efficiency of resource use and allocation. Increased efficiency is attained when superior technology is employed or when policy and institutional changes in resource allocation result in increase average returns on investments. Increased investments/capital accumulation is necessary for economic growth. It follows then that for economic growth to be sustained

- savings must be available;
- firms must be willing to invest; and
- institutions must channel funds to investments that promise highest social returns.

Financial factors are therefore important in economic development because they affect the availability of savings and the allocation of investible funds to different sectors of an economy.[2]

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[1]See Lewis (1954)

[2] See Dornbusch and Reynoso (1989), p.202.

Two possible relationships between financial sector developments and economic growth are outlined by Patrick (1966): the "demand following" phenomenon, where growth in the demand for financial services depends on the growth in real output and the commercialization and monetization of agriculture and traditional subsistence sectors; and the "supply leading" phenomenon, where a causal relationship exists from financial sector growth to economic growth. Patrick (1966) suggests that early stages of economic growth are characterized by supply leading finance whereas demand leading finance characterizes mature economies.

The work of McKinnon (1973) and Shaw (1973), commonly termed the McKinnon-Shaw Hypothesis, implicitly assumes that the supply leading phenomenon holds true for developing economies. Their main thesis is that the liberalisation of the financial sector of developing economies, by effecting increases in the real rate of interest and financial intermediation, increases the level of savings and investment in economies. On this basis they argue that financial liberalisation contributes to economic growth and development.

The policy of financial liberalisation pursued in Jamaica by successive governments since the mid-1980's was predicated on the McKinnon-Shaw Thesis. The reforms were part of a wider programme of macroeconomic adjustment. The policies pursued were designed to eliminate the repressive features of the system that existed before 1985. The broad objectives of the financial reform programme included: the separation of monetary and fiscal policies, the elimination of distortions in the financial market, and the creation of a fiscal and institutional environment that would strengthen the capital market.

Before 1985, monetary management involved elements of global credit ceilings and directed credit operations through sector specific credit ceilings. Other features of the financial system included a statutory savings deposit floor rate and a maximum mortgage lending rate. Interest rate subsidies were also provided through refinance operations and through specialized agencies. A non remunerated cash reserve ratio and a non-cash liquid asset requirement ratio were also features of the pre reform regime.

The performance of the financial sector since 1985 has been remarkable. Total assets of the financial sector grew by over 40 per cent (in real terms) between 1985 and 1993. Similarly financial intermediation, as measured by the ratio M2/GDP rose from 46 per cent in 1985 to 58 per cent in 1993, peaking at 65 per cent in 1989. There was also a proliferation of new instruments and institutions in the sector.

Despite the high rates of growth experienced in the financial sector over the last ten years and increases in the real savings rate over these years, the productive sectors of the Jamaican economy reflected poor growth performances. Though the financial sector enjoyed real growth averaging more than 13% per anum for the last ten years, this level of growth has not been realised by the productive sectors. The average rate of economic growth for the last ten years is less than 2 per cent, with growth in the last five years being below 1% per anum.

The main aim of this paper is to examine the impact of financial sector developments on the performance of the productive sectors of the Jamaican economy over the last decade. In particular, the paper attempts to explain:

1. the effects of financial sector liberalization on activities in the productive sectors of the Jamaican economy;
2. the linkages between financial sector developments and the growth of the productive sectors of the Jamaican economy.

Consistent with the above objectives the presentation attempts to ascertain the relevance of the financial repression paradigm (McKinnon and Shaw Thesis) to the Jamaican economy, and to explain how factors impacted on real sector development. In addition, the paper will examine the potential of the financial sector to generate sustained growth in the Jamaican economy.

2.0 The Financial Repression Paradigm

The central propositions of this theory are that financial repression is a hindrance to economic growth and development and that increased interest rates, effected through financial liberalisation, would stimulate growth in financially repressed economies. From a purely theoretical viewpoint the most persuasive account of the effects of financial repression on the economies of developing countries is provided by McKinnon (1973) and Shaw (1973).

Employing the neoclassical theory of interest rates determination they defined financial repression as a system of administratively determined deposit and loan rates, in the form of interest rates ceiling, which combines with high inflation rates to hold real deposit rates below equilibrium levels. Financially repressed economies are usually characterized by the prevalence of negative real deposit rates, high reserve requirements, selective credit controls, distortionary provision of subsidised loans, and underdeveloped and fragmented financial markets.

It is argued that financial repression hinders economic growth by restricting financial intermediation and thus restricting the development of a viable capital market. It is argued that negative deposit rates contribute to capital flight and encourages domestic residents to hold savings as gold, real estates and other physical assets rather than in financial assets. The result of this is a shortage of investment funds in the formal markets and a consequent reduction in realised investments (McKinnon's "conduit effect")[3]. Investment is also discouraged because of the

[3] See McKinnon (1973), pp. 60-61.

increased uncertainty associated with misdirected financial policies. Financial repression also hinders the efficient allocation of resources. It is argued by McKinnon (1973) that the shortage of savings experienced in financially repressed economies forces lending institutions to ration credit using non market criteria resulting in a reduction in the efficiency of investments. Financial repression also promotes inefficient allocation of resources by reducing the monetization and commercialisation of the traditional agricultural and subsistence sectors and through increasing self-financed investments and the consequent use of relatively backward technology.

The second proposition above rests on the assumption that Patrick (1966) "supply-leading" axiom holds true for financially repressed economies. This is based on the following assertions

- there is a positive relationship between the real deposit rate and the savings rate, such that increased real deposit rates will effect an increase in savings and therefore increase the pool of funds available for investments (McKinnon's "conduit effect");
- increases in the real deposit rate increase the availability of investable funds and therefore increase realized investments, also investment may increase through McKinnon's (1973) hypothesis of the complimentarity of money and capital;[4]
- removal of interest rate ceilings and other elements of financial repression will increase financial intermediation;
- increases in the real deposit rate will increase the average yield of investments, and thus contribute to the improvement in capital stock.

On the basis of the above representations, proponents of financial liberalisation asserts that financial "unrepression" provide a positive stimulus to growth in developing countries. The major propositions of the financial repression paradigm has been extensively tested with conflicting results. Empirical studies suggest that the outcome of financial liberalisation is dependent on such factors as the pace of its implementation, the sequencing of the reform measures, the general state of macroeconomic stability during the reform period and the institutional structures of subjected economies.

[4] McKinnon (1973) argued that there is complimentarily between money and capital. He argued that because investment projects are lumpy investors must accumulate investment balances in the form of deposits until the required amount of principal is attained. The higher the returns on savings therefore the more willing investors are to accumulate deposits.

3.0 THE JAMAICAN ECONOMY 1985-1995

Despite the poor performance of the Jamaican economy over the past decade, the financial sector has experienced significant growth. Contrasting financial and real sector performance is shown in Table 1. The table shows that the growth of the financial sector has far out paced that of all other sectors since 1980. This performance of the financial sector is reflected in its increased contribution to GDP (See **FIGURE** 1). The Financial sector has grown significantly since the mid-1960's, the growth rate, however, has accelerated since the mid 1980's. The average annual growth rate of the financial sector for the period 1985 to 1995 was 13.63 compared to 2.28 for the overall economy.

Growth in the tourism, mining and agricultural sectors averaged over five per cent per anum over the last decade. The growth in income from tourism resulted from increased local and foreign investments in the industry over the last decade along with intensive promotional activities by the Jamaican Tourist Board. The increased investments in the tourism sector is reflected in increased real commercial bank credit allocation to the sector since the early 1980's. The tourism industry is the only productive sector to which real credit allocation from the commercial banking system was increased since the advent of financial reform. The growth in the mining sector reflected increased demand for aluminum and consequent increased domestic production of bauxite and alumina, the major output of this sector.

Figure 1 shows that the agricultural sector and mining sectors share of total output increased over the last decade. With average annual growth rates exceeding 5 per cent, these sectors are clearly not responsible for the general poor growth rates recorded in the Jamaican economy over the period. This could instead be attributed to the poor performance of the manufacturing sector, particularly after 1991. Table 1 shows that the manufacturing sector experienced average annual growth of less than one per cent for the last decade. Output in the manufacturing sector declined by an average rate of just under two per cent per anum over the last five years. The relatively poor performance of the manufacturing sector is reflected in its declining contribution to domestic output. The manufacturing sector's contribution to Gross Domestic Output declined from 21.5% in 1986 to approximately 18% in 1995. Given the large contribution of this sector to total income and employment in the Jamaican economy its relatively poor performance impacted significantly on aggregate output and is largely responsible for the low rates of economic growth recorded over the last decade.

3.1 SOME FINANCIAL SECTOR DEVELOPMENTS

Over the period 1985 to 1995 the proportion of national income accounted for by income from the financial sector increased from 6.9% to 15.14%. This increasing skewness towards financial sector activities occurred against a background of economic instability, and the deregulation of the financial sector. Outlined below are some of the developments in the Jamaican financial sector over the past decade. Specifically, considerations are given to the structure of the financial sector pre-1986; the objectives of the financial reform programme; and developments in the financial sector post liberalisation that impacted on the real economy.

3.1.1 THE FINANCIAL SECTOR REFORM PROGRAMME

The Jamaican financial sector pre-1986 was highly regulated. Prominent features included:

- direct government involvement in the operation and development of financial institutions;
- restrictions on entry;
- high reserve requirement;
- selective credit controls; and
- interest rate controls.

High secondary reserve requirement coupled with a high cash reserve ratio provided a captive market for the finance of governments budget deficits. The captive financing of government deficit through the secondary reserve requirement and loans from domestic commercial banks in addition to reducing the pool of funds available for the private sector contributed to high lending rates.

Other prominent features of the financial sector was its oligopolistic nature and the dominance of the commercial banks in the system. The commercial banks dominated the financial intermediation process through their direct ownership of a large proportion of the assets in the sector and indirectly through their ownership of other financial intermediaries. As a group commercial banks directly accounted for over 50%

per cent of financial sector assets. In addition, commercial banks established Trust companies, Merchant Banks, Building Societies and Finance Houses. This conglomeration of financial institutions contributed to the uncompetitive nature of the sector which ultimately contributed to large interest rate spreads.

On the eve of the implementation of the Financial Sector Reform Programme the Jamaican economy exhibited all the features of financial repression. Tight regulations coupled with high reserve requirements served to limit the development of a viable capital market. As a result of the distortionary policy features outlined above the financial sector was underdeveloped and fragmented.

The financial sector reform program pursued since the mid-1980's was part of the wider macro economic stabilisation program. Financed by the World Bank's Trade and Financial Sector Adjustment Loan (TFSAL) the main aim of this program was:-

> *"...to improve the efficiency of the Jamaican financial market in order to encourage investment and improve resource allocation."*[5]

Specifically the program sought to

a) eliminate the distortions of the financial markets resulting from the high reserve requirement and credit and interest rate controls;
b) create an institutional structure that would strengthen the capital market; and
c) separate monetary and fiscal policy.

The third objective was pursued in the hope of improving the efficacy of monetary policy.

The implementation of the reform was accompanied by changes in policy direction and in some instances policy reversals. For example, after the removal of the secondary reserve requirement in 1986, it was reinstated in 1990 in the form of the non-cash liquid asset ratio. There was also limited reintroduction interest rates subsidies in 1994[6]. These policy changes were dictated by the increasing economic instability as manifested in increasing inflation rates and currency depreciations in the late-1980's and the early 1990.

The examination of a range of indicators suggest that Jamaica financial sector experienced

[5]See IBRD 1991, p.5

[6] Interest rates subsidies along with credit were discontinued in 1991.

significant growth over the period of financial reform. Trends in asset growth and composition; interest rates structure and spread, and loans allocations; along with developments pertaining to available services and instruments, as well as the changing structure of the financial sector since 1986, suggest that financial reform has impacted significantly on the financial sector and the wider Jamaican economy.

3.1.2 FINANCIAL ASSET AND INCOME GROWTH

Over the last ten years there has been a rapid growth in financial sector assets and income. **Figure 2** and **Figure 3** show that the nominal and real asset of the financial sector has increased rapidly since 1985 and particularly since 1990. The growth in assets was more dramatic for commercial banks. There was a rapid growth in the number of Building Societies and Merchant Banks. The numbers of finance houses, insurance companies and credit unions, however, declined relative to the levels of the early 1980's. This decline reflected increased concentration and the conglomeration of institutions. For example, the decline in the number of finance houses and trust companies was directly associated with the increase in the number of Merchant Banks. This was so since these institutions provided the same services.

A prominent feature of the post reform financial sector in Jamaica was the increasing conglomeration of financial institutions . The typical conglomerate consists of commercial bank, merchant bank, building society, insurance companies and productive sector entities. In the 1990's financial sector companies increased their investments in the productive sectors, particularly in tourism, agriculture and construction industries. The result was that up to the end of 1995, there was an increasing tendency towards conglomerates including productive sector entities. Conglomeration, in addition to facilitating financing for the groups non financial entities, provided flexibility in maneuvering among financial regulations. Though regulations prevented commercial banks from directly providing loan financing to the non-financial entities in there conglomerates, they acted as loans guarantors for these institutions. Conglomeration also strengthened the competitiveness of institutions and provided economies of scale through shared management, offices and services.

Table 1 shows the growth in financial sector income over the period 1985 to 1995. It shows that the average annual growth rate of the sector in the period of financial reform was over 13 per cent, compared to growth rate averaging just over 5 per cent for the previous five years. Increased profits in the post liberalisation era resulted from a number of financial and non financial developments. The increase in the range of services offered by financial institutions fueled a significant increase in fee income (See **Table 2**). These included fees arising from:-

- operations of remittance services;
- increased utilization of manager's cheque, particularly for foreign exchange transactions; and
- commercial banks operating as brokers and guarantors in the commercial paper market.

Other sources of income growth were the increases in lending rates, earnings from the holding of government securities, and speculative investments in real estates and in the stock exchange. **Table 2** shows that the commercial banks interest income increased significantly after 1990. The financial sector profitability was also enhanced by increased foreign exchange market activities between 1986 and 1991 and in 1993 and 1995.

TABLE 2
COMMERCIAL BANKS INCOME
($'MILLIONS)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*
NET INTEREST INCOME	*684*	*715*	*515*	*1,385*	*1,811*	*9,857*
FEE INCOME	*144*	*202*	*353*	*524*	*867*	*1,417*
TOTAL INCOME	*828*	*918*	*868*	*1,909*	*2,679*	*11,274*

Source: Bank of Jamaica, Department of Supervision of Banks and Financial Institutions

3.1.3 INTEREST RATES

Financial liberalisation was accompanied by significant increases in nominal loan and savings deposit rates and interest rates and the spread between these rates, this even before the total liberalisation of interest rates in December of 1990. **Figure 4** shows that the real saving and deposit rates increased after liberalisation in 1985 but declined after 1988 primarily in response to increasing inflation. Real loan rates and saving rates have been increasing since their low in 1991. The real savings rate has however remained negative up to the end of 1995.

The increase in commercial bank's lending rates since 1985 reflected a combination of factors inclusive of:-

- increased liquid asset reserve requirements;
- increased costs of mobilizing deposits; and
- increased non-performing loans.

The increase in the number of institutions in the sector resulted in increased competition for deposits and consequent increases in the interest rates offered to savers. This was particularly true for smaller institutions. The smaller and relatively new commercial banks were faced with relatively higher costs of mobilizing savings when compared to the larger established commercial banks. This was so since the smaller commercial banks mobilised credit mainly through term deposits with higher interest rates compared to the larger banks who deposits were dominated by savings and demand deposits. The government's monetary policy was also instrumental in increasing the interest rates. This was particularly true after 1989.

3.1.4 CREDIT AVAILABILITY AND ALLOCATION

Consistent with the predictions of the Financial Repression Paradigm the liberalisation of the Jamaican financial system resulted in increased availability of loanable funds in the form of deposits in the formal banking system. **Figure 5** shows that both the real and nominal values of deposits in the banking system increased after 1985. This along with the M2 to GDP ratio (**Figure 6**) suggests that there was increased financial intermediation in the post liberalised era. The national saving rate, measured by the ratio of gross national savings to gross national income, also increased. The Granger Causality Test results in APPENDIX 1 suggest that this resulted from increases in the nominal returns on savings.

In response to the increases in real deposit interest rates, deposits in financial institutions increased in the period 1985 and 1989. However, increasing instability and the resulting reduction in the real deposit interest rates contributed to a reduction in financial intermediation in the years after 1989. Deposits however have been increasing steadily since 1991. The advent of foreign currency accounts in 1991 along with increasing real savings rates have been the main contributors to the increases since 1991.

There was further increase in the availability of investable funds in the financial sector through the development of the commercial paper market, mutual fund investments and the increased demand for insurance services. The increase in banking system deposits therefore does not capture completely the increase in financial intermediation.

It is to be noted that financial reform was accompanied by the development of alternative sources of finance. Notably among these were:-

- foreign currency denominated loans
- the commercial paper market
- the equity market (mainly between the late 1980's and the early 1990's);
- loans from specialised institutions such as merchant banks and development banks; and
- access to foreign capital markets.

In light of the development of these alternative sources of financing, the reduction in commercial bank credit to the productive sector may not be indicative of reduction in overall credit allocation to the sector from the financial system. It indicates that there was some restructuring of debt in response to and as a result of financial liberalisation and the high interest rates regime.[7]

TABLE 6
Commercial Banks' Foreign Currency Loans Outstanding
1991-1995 (S'Mn)

	1991	1992	1993	1994	1995
US$	20.9	91.3	146.4	309.8	337.4
J$ Equivalent	424.5	2007.4	4174.5	10119.6	11114.3
Annual Growth Rate		372.9	108.0	142.4	9.8

Source: BOJ Statistical Digest

The stock of commercial banks foreign currency loans outstanding increased by 1514 per cent over the period 1991 -1995 (See **Table 6**). This represents an average annual rate of increase of over 120 per cent. Commercial banks report that all these loans are made to export industries[8]. These loans were particularly attractive given that they attracted significantly lower interest rates. This was so even after considerations of exchange rate risks. Interest rates on foreign currency loans averaged 13.5 per cent over the period 1991-1995 compared to an average of over 50 per cent for Jamaican dollar denominated loans.

The real value of credit from Merchant Banks, Finance Houses and Trust Companies is shown in **Figure 9**. It shows a decrease in the loans outstanding from these sources. Loans from building societies however increased.

The commercial paper market arose out of the need for firms to find alternative sources of finance given the high lending rates since the advent of the 1990's. In the main, the demand for this type of

[7] See Stennett (1995) p.30.

[8] There is some doubt to this since the largest increases recorded coincided with the tariff reform programme of 1993 and the subsequent increases in motor vehicle imports.

credit comes from large companies with high credit ratings. The interest rates on commercial paper are usually below the commercial banks lending rates but above the prevailing deposit rates. They are therefore more attractive to both lenders and borrowers than commercial bank savings and credit. The commercial banks act as guarantors and sometimes as brokers in the commercial paper markets. Survey carried out by the Department of Supervision of Banks and Financial Institutions indicates that the balance outstanding at the end of 1994 was J$4 billion. The value of commercial paper outstanding at June 1995 was over 45 per cent of the stock of loans to the productive sectors outstanding at the end of 1995.[9]

The stock market, except for a relatively high level of activities in the late 1980's and in 1992 and 1993, has not emerged as a significant alternative source of financing in the wake of financial liberalisation. Accounting for this is the fact that Jamaican businesses traditionally prefer non-equity financing. This allows owners to keep controlling interest within a particular business. Also the high levels of interest rates restricted the development of a viable equity market.

[9]See Panton (1995)

4.0 FACTORS INFLUENCING PRODUCTIVE SECTOR PERFORMANCE

The general poor performance of the Jamaican economy since 1985 and particularly after 1990 reflect a combination of factors of which the financial factors are only secondary. These factors include

- credit availability and allocation;
- macroeconomic instability;
- high interest rates;
- government crowding out
- trade liberalisation: and
- institutional and structural deficiencies.

Observed trends in credit availability suggest that financial liberalisation increased the pool of loanable funds available through the financial sector. Trends in the allocation of loanable funds, however, may not be considered positive from a development perspective.

The increased intermediation along with the general reduction in the public sector credit demand since the mid-1980's resulted in a significant increase in the availability of credit to the Jamaican private sector (**Figure** 7). The reduction in the proportion of commercial bank credit to the public sector resulted from the contraction of the public sector since the early 1980's. **Figure 10** shows that although in nominal terms commercial banks' net claims against the public sector has been increasing since 1991, in real terms it has not increased. In real terms commercial banks net claim against the public sector stood at J$3.7 billion in 1994, 16 per cent below that of 1985.

Despite the general increase in the level of real loans and advances to the private sector between 1985 and 1995 the productive sectors share of loans from the commercial banking system fell (See **Figure** 7 **Appendix 2**). After 1988 only the tourism industry increased its access of funds from commercial banks (See **Figure 8**). Financial liberalisation was accompanied by significant increases in the allocation of commercial bank credit to the consumption sector at the expense of the productive sectors (See **Figure 7**). The increase in consumption credit was associated with increased credit demand following the removal of credit controls;

the reduction in the productive sectors demand for credit as a result of increased interest rates; the relaxation of import restrictions, particularly as it related to the motor vehicles import policy; and the relatively high wage settlements of the post 1991 era. With the easing of restrictions on consumption credit, this component of total credit increased significantly as a result of pent up demand. Some of this increase may, however, be the result of classification ambiguities. The largest component of consumption credit is accounted for by personal loans. However, with the expansion of the informal economy since the mid 1980 it is likely that a relatively large proportion of personal credit went into the funding of informal sector activities, which are productive in nature.

The increasing allocation of commercial bank's credit to consumption represents a reduction in the social efficiency of loan allocation. This development runs contrary to the predictions of Mckinnon and Shaw Hypothesis and has negative implications for future economic growth.

The generally unstable macroeconomic environment prevailing in Jamaica since 1989 has been the most significant factor explaining the economy's poor growth performance. This instability was initiated in part by the influx of re-insurance funds and the high level of inflationary financed deficit expenditure necessitated by Hurricane Gilbert. The instability was manifested in high inflation rates and currency depreciations. In an economy with extremely risk averse investors economic instability resulted in a reduction in the planning horizon. The highly unstable macroeconomic environment existing in the Jamaican economy since the latter half of the 1980's created biases against productive activity in favor of speculative and financial investments. The stabilisation measures implemented by the Government of Jamaica also impacted negatively on the growth rate of the Jamaican economy through its impact on the productive sectors in general and the manufacturing sector in particular.

The demand management policies implemented in an attempt to stabilise the Jamaican economy has impacted negatively on the level of economic activity through its impact on loan interest rates.

The reserve requirement ratio was a primary tool of monetary policy. Subsequent to the elimination of the secondary reserve requirement and the reduction in the cash reserve ratio in 1986, the cash reserve ratio was increased in 1990 and the secondary reserve requirement reintroduced in 1992. The resulting high liquid asset ratio presented a constraint on the availability of loanable funds and has been a significant source of crowding out of domestic investment. Also, the high liquid asset requirement, particularly the cash reserve requirement, contributed to the increase in the nominal loan rates. In an environment in which firms are highly leveraged, increasing interest rates, by raising the cost of loanable funds, increases cost of production significantly. The high interest rates presented an obstacle to productive investments and is partly responsible for the poor performance of the productive sectors of the Jamaican economy. This is particularly true for the manufacturing sector.[10]

By borrowing from the domestic financial system to satisfy its fiscal needs the government has absorbed some funds available for private investment. Despite the contraction of the public sector and the resulting reduction in public sector demand for financial sector credit, the crowding out effect of government expenditure is still evident in the Jamaican economy. **Figure 9** shows that commercial bank's net claims against the public sector as a percentage of total private sector deposits decreased from 56% in 1985 to 49% in 1994. Commercial bank's net claims as a percentage of total loans decreased from 49% in 1985 to 39% in 1994. These indicators suggest that, despite reductions in its intensity, crowding out remains a serious impediment to sustained growth in the Jamaican economy. The Granger Causality results in **Appendix 1** suggest that changes in the volume of credit to the public sector and net commercial bank's claims against the public sector does not Granger cause changes in the volume of credit to the productive sectors. It however, suggest that loan interest rate was significant in explaining changes in the volume of productive sector credit. This is the main avenue through which government's operations impact on

[10] See Pehlivan 1996

productive sector activities.

The reduction in government crowding out (See **Figure** 9) resulted from the contraction of central government since the mid-1980's. The past decade has seen significant reductions in government's capital expenditure and contraction of government services. Given the complimentarily between private investment and government investment in the Jamaican economy, the reduction in public sector investments and the contraction of government services, may not be considered absolutely positive developments. The resulting deterioration of social and physical infrastructure, particularly the decline of education and public health services, has impacted negatively on worker productivity and has contributed to increased production cost, with negative implications for productive sector growth.

The increasing allocation of credit to consumption reflect the crowding out of productive investments by increased interest rates and the rationalisation of commercial banks loan portfolio. Loan default risk increases with increases in loan rates. By increasing their loans to consumption, banks are able to reduce their default risk exposure by reducing the average repayment period of loans and by diversifying their risk across a large number of small loans[11]. This was particularly significant in the high interest rate environment post 1989.

A prominent feature of the Jamaican economy is the inability of its manufacturing sector to meet its consumption demand, in terms of both quality and quantity. Prior to 1991, however, aided by protectionist policies, the manufacturing sector subsisted. The sector was protected from import competition by prohibitive high import tariffs and quantitative import restrictions. The liberalisation of trade in 1991 combined with high domestic inflation rates served to reduce the competitiveness of domestic produced goods and services. Trade liberalisation was accompanied by significant increases in imports. The effects of this on the manufacturing sector has been significant. Equipped with obsolete technology in an environment

[11] See Stigltz and Weise (1981)

where financial costs prohibited retooling, the Jamaican manufacturing sector stagnated in the wake of increased competition from imports.

In addition to economic instability, the structural and institutional deficiencies of the Jamaican economy also militated against growth of the productive sectors. Structural factors influencing the economic out turn in Jamaica included labour market instability, poor infrastructure, inadequate education and health care system, inadequate public transportation system, poor labour productivity, bureaucratic bottlenecks, social instability, generally poor incentives structure, *inter alia*. It is imperative that these problems be addressed if sustainable growth is to be attained in the Jamaican economy.

Excessive regulations continue to be a significant constraint on production in the Jamaican economy. Excessive regulations by increasing "time and transactions cost" provide a bottleneck to the establishment and operation of new businesses. The Investment Facilitation Board established in 1995 is expected to reduce bureaucratic bottlenecks in the Jamaican economy and should contribute positively to growth in the future.

Poor labour productivity is a salient feature of the Jamaican economy. This has been exacerbated in recent years by the deterioration of social services, notable the education and health services; and the deterioration of the public transportation system. In addition to these factors, the manufacturing sector in Jamaica has been inhibited by the unavailability of suitable factory space; employment of backward technology; unreliability of public utilities, particularly water and electricity; and the poor state of infrastructure. These factor are more so inhibitive given the existing state of economic instability and the high interest rate regime in which businesses must operate.

5.0 Conclusions

Financial factors were significant, however secondary, in explaining the poor growth performance of the productive sectors of the Jamaican economy over the last decade. The two financial variables which impacted most significantly on real sector activities were loan interest rates and credit availability and allocation. The paper concluded that financial liberalisation resulted in increased availability of loanable funds through increased deposits and the development of alternative sources of financing. Trends in commercial bank's credit allocation, however, suggest that total credit to the productive sectors decreased at the expense of increased credit for consumption purposes. The increasing skewness in credit allocation towards consumption resulted from reduced demand for productive sector credit which in turn resulted from prohibitive interest rates.

The high interest rates regime prevailing in the Jamaican economy since 1989 was a direct result of monetary policy. It, however, presents a serious obstacle to economic growth. The high interest rate regime, effected through high liquid asset reserve requirement, is however important for short run stabilization. The foregoing discussions, however, suggest that high interest rates have adversely affected the growth performance of the Jamaican economy. This would suggest the need for some time table for the reduction in the liquid asset reserve requirement and the interest rates over time. Also, fiscal and monetary policy developments must seek to eliminate the need for high liquid asset requirements. This is essential if the economy is to attain interest rates levels consistent with the needs of the productive sectors.

Economic instability and structural deficiencies have been the most significant factors influencing Jamaica's economic performance over the past decade. These factors are more so important given that they were significant in explaining the interest rates out turn and the allocation of financial sector credit. This indicates that Patrick (1966) "supply leading" hypothesis is invalid for the Jamaican economy given its environment of macroeconomic instability and its inherent structural deficiencies. It further indicates that financial liberalisation, though necessary, is insufficient for the generation of sustainable economic growth in Jamaica. This suggests the need for a comprehensive approach to policy, which identifies economic stabilisation and the correction of structural deficiencies as vital developments for the attainment of sustainable economic growth.

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Appendix 1

Table 7 Granger Causality Test Results		
Hypothesis	**F Statistics**	**Probability**
Δ INTR DNC* ΔMFG	4.43	0.02
ΔMFG DNC Δ INTR	0.68	0.52
Δ INTR DNC ΔAGRI	0.45	0.64
ΔAGRI DNC Δ INTR	2.23	0.12
Δ INTR DNC ΔPRODLNS	3.25	0.07
ΔPRODLNS DNC Δ INTER	1.24	0.37
Δ GOVLNS DNC ΔPRODLNS	0.18	0.84
ΔPRODLNS DNC ΔGOVLNS	0.69	0.52
ΔPRODLNS DNC ΔCBCLAIMS	3.89	0.12
ΔCBCLAIMS DNC ΔPRODLNS	0.85	0.46
ΔINTR DNC ΔGNS/GNI	9.50	0.01
ΔGNS/GNI DNC ΔINTR	2.88	0.11

DEFINITION

INTR-	Weighted Average Loan Rate
MFG-	Index of Manufacturing and Industrial Production
AGRI-	Agricultural production index
PRODLNS-	Real Stock of Loans to the Productive Sectors Outstanding
GOVLNS-	The Real Stock of Loans to the Productive Sectors Outstanding.
GNS/GNP-	The Ratio Of Gross National Savings to Gross National Income
DNC-	Did Not Cause
Δ-	Changes

APPENDIX 2

TABLE 1
SECTORAL GROWTH RATES

Years	Agriculture	Manufacturing	Financial Institutions	Construction	Distributive Trade	Total GDP
1985	-3.54	0.40	-7.03	-8.27	-9.10	-4.72
1986	-2.02	3.27	12.34	2.73	5.78	0.57
1987	4.63	4.70	8.04	14.23	10.98	7.42
1988	-4.58	5.12	19.14	14.83	0.97	1.91
1989	-7.52	5.92	16.29	17.96	3.48	7.53
1990	12.08	5.04	10.93	1.59	1.01	4.80
1991	22.17	-5.74	24.08	0.64	5.79	3.37
1992	13.05	1.29	7.96	0.43	5.29	1.50
1993	10.12	-1.93	-7.12	-0.50	4.00	1.42
1994	7.47	-0.54	47.32	-6.30	1.68	0.75
1995	2.17	-1.02	-2.65	6.66	5.72	0.50
1980-85	**-0.20**	**-0.69**	**5.14**	**-3.43**	**-1.71**	**-1.09**
1986-90	**0.51**	**4.62**	**13.42**	**10.27**	**4.44**	**4.44**
1991-95	**11.09**	**-1.58**	**13.92**	**0.19**	**4.50**	**1.57**
1985-95	**5.80**	**1.52**	**13.63**	**2.20**	**4.50**	**2.30**
1980-95	**3.79**	**0.74**	**11.17**	**2.11**	**2.30**	**1.45**

FIGURE 1
SECTORAL SHARE OF GDP

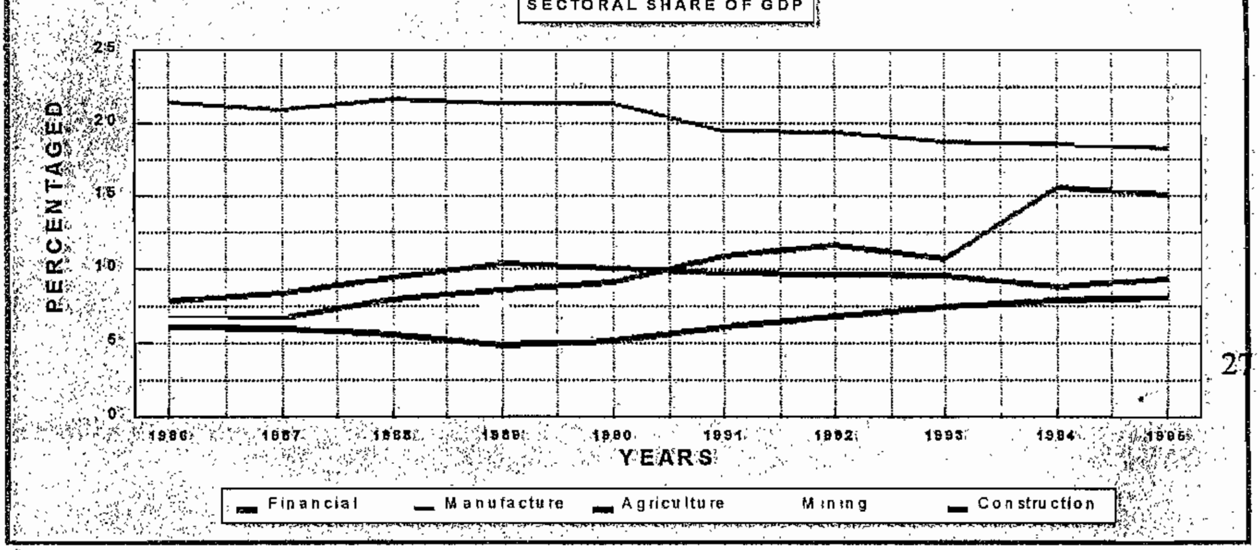


Figure 2
Trends in Nominal Asset Values

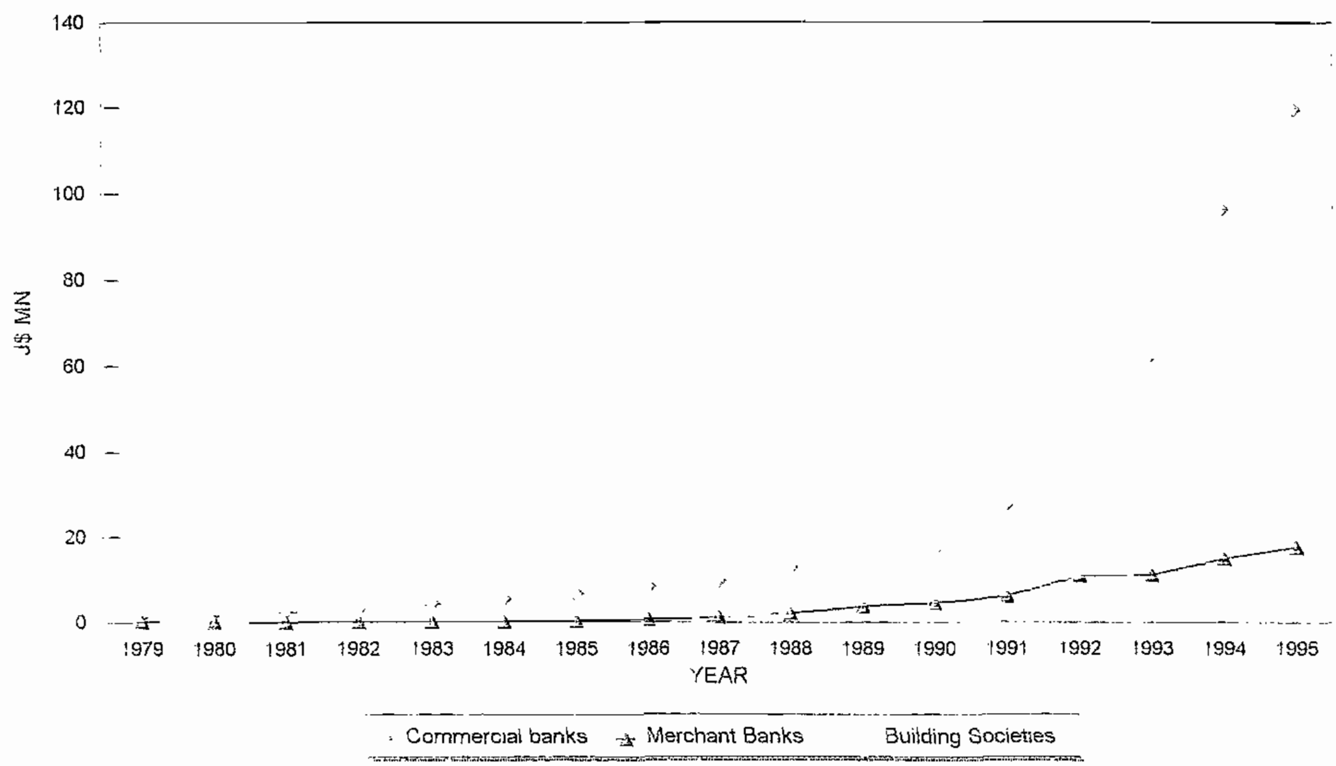
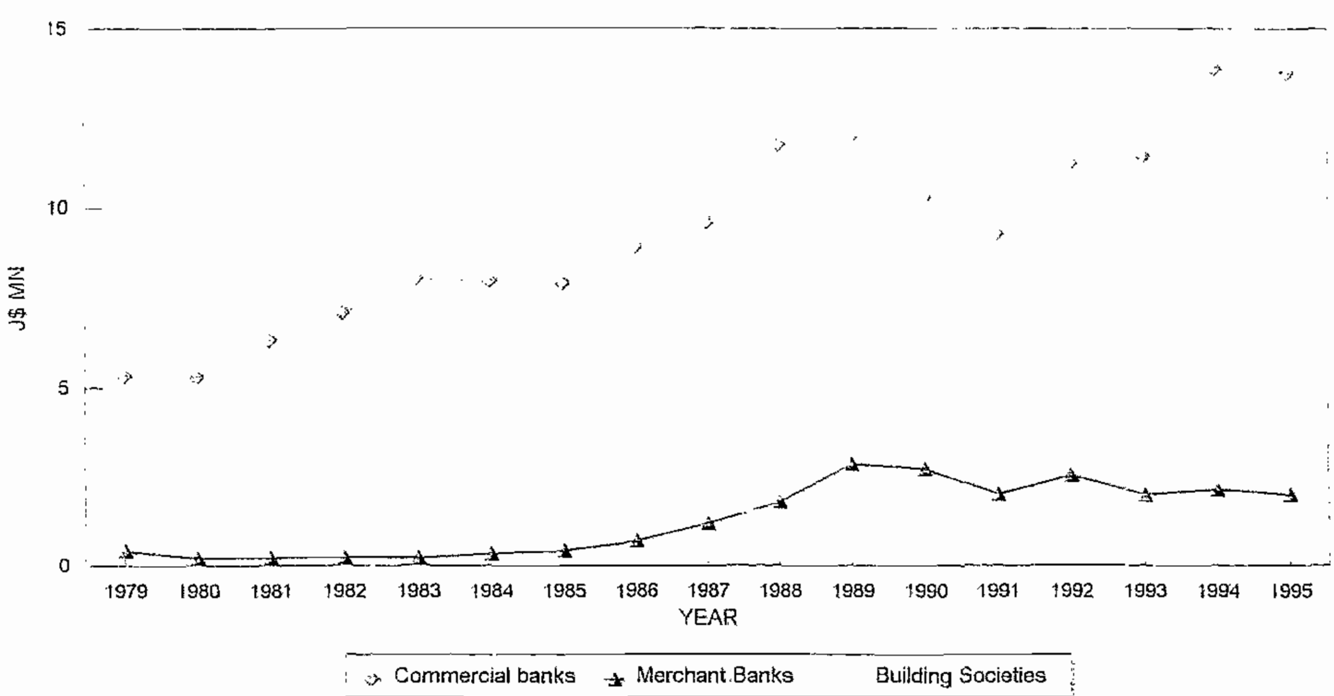


Figure 2
Trends in Real Asset Values (Selected Institutions)



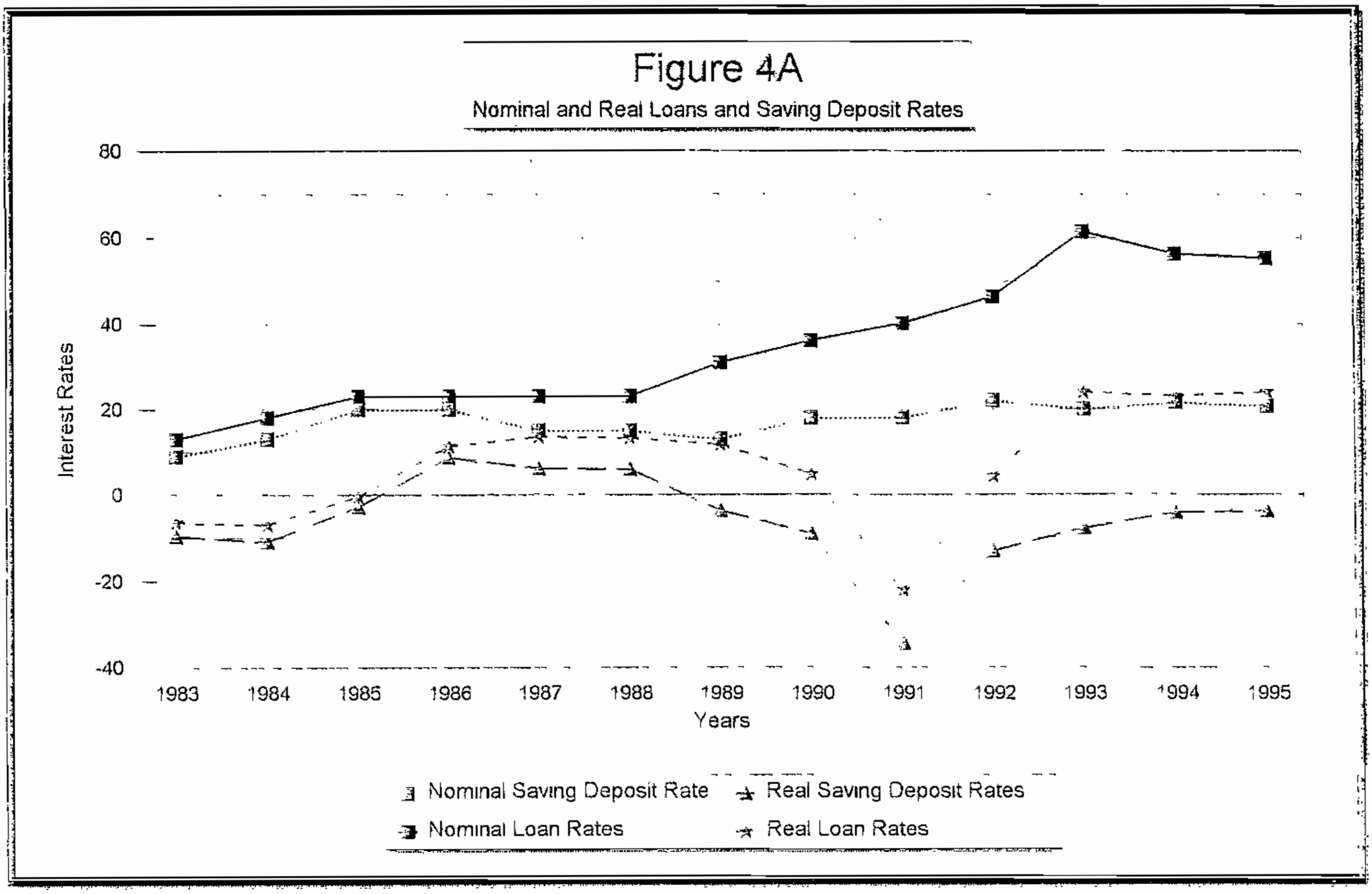


Figure 4A
Nominal and Real Loans and Saving Deposit Rates
80
60
40
20
0
-20
-40
Interest Rates
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
Years
Nominal Saving Deposit Rate
Real Saving Deposit Rates
Nominal Loan Rates
Real Loan Rates

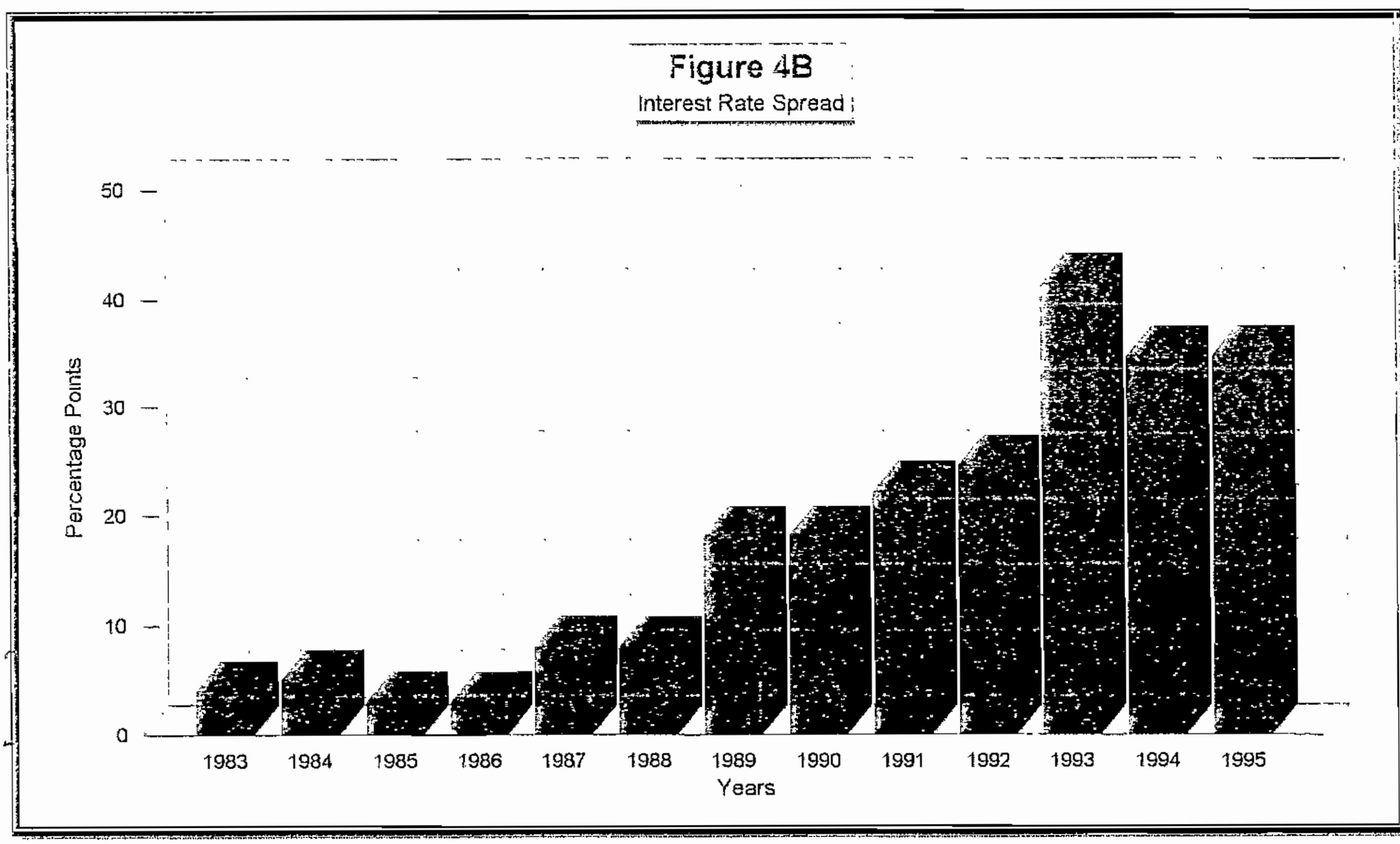


Figure 4B
Interest Rate Spread
50
40
30
20
10
0
Percentage Points
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
Years

Figure 5

Trends in Total Financial Sector Deposits

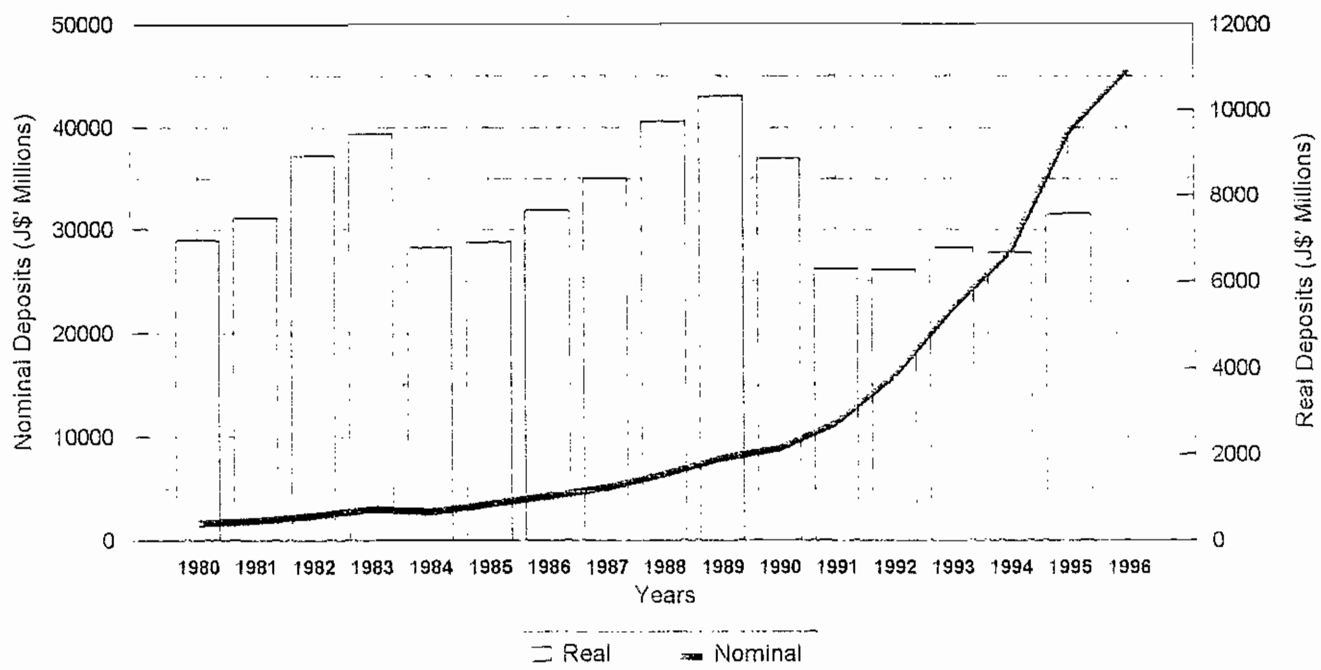


Figure 6

Measures of Financial Intermediation

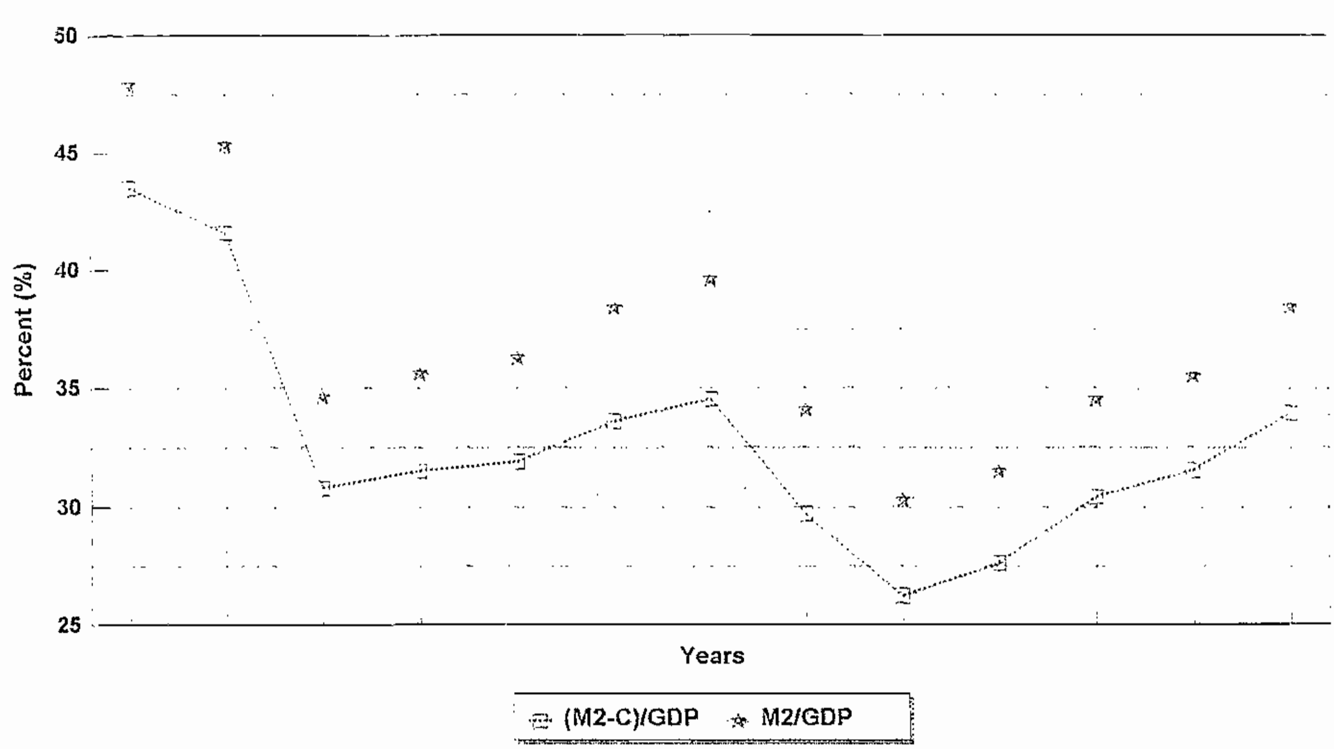


Figure 7
Distribution of Total Commercial Bank Credit

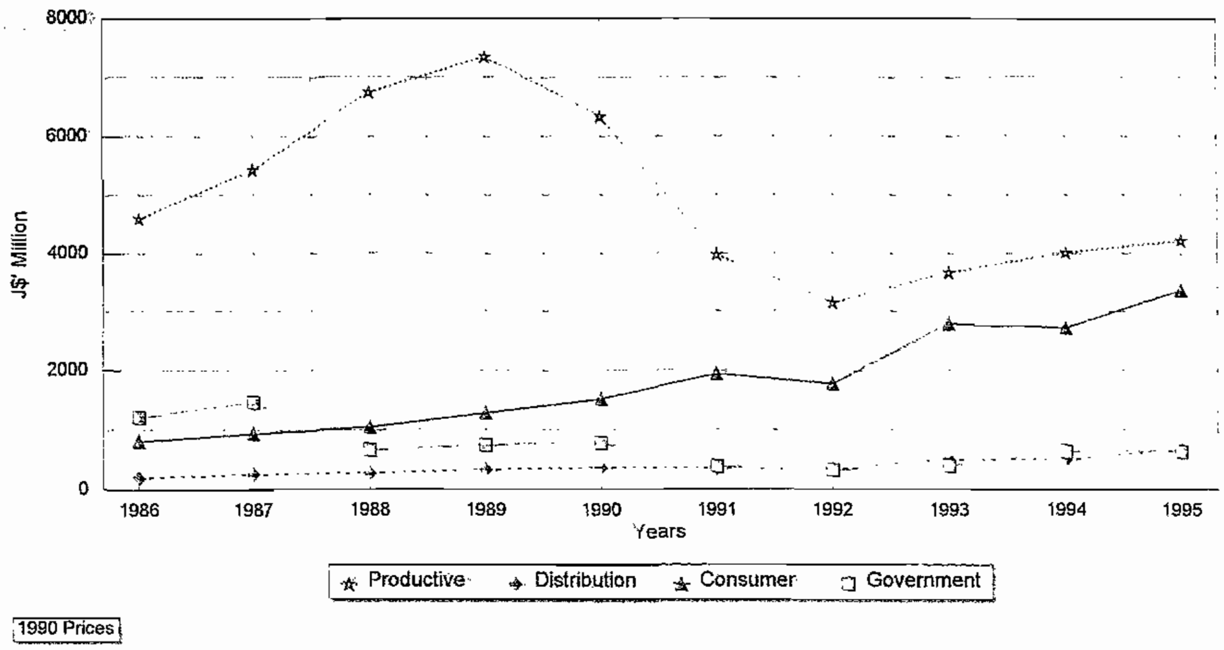
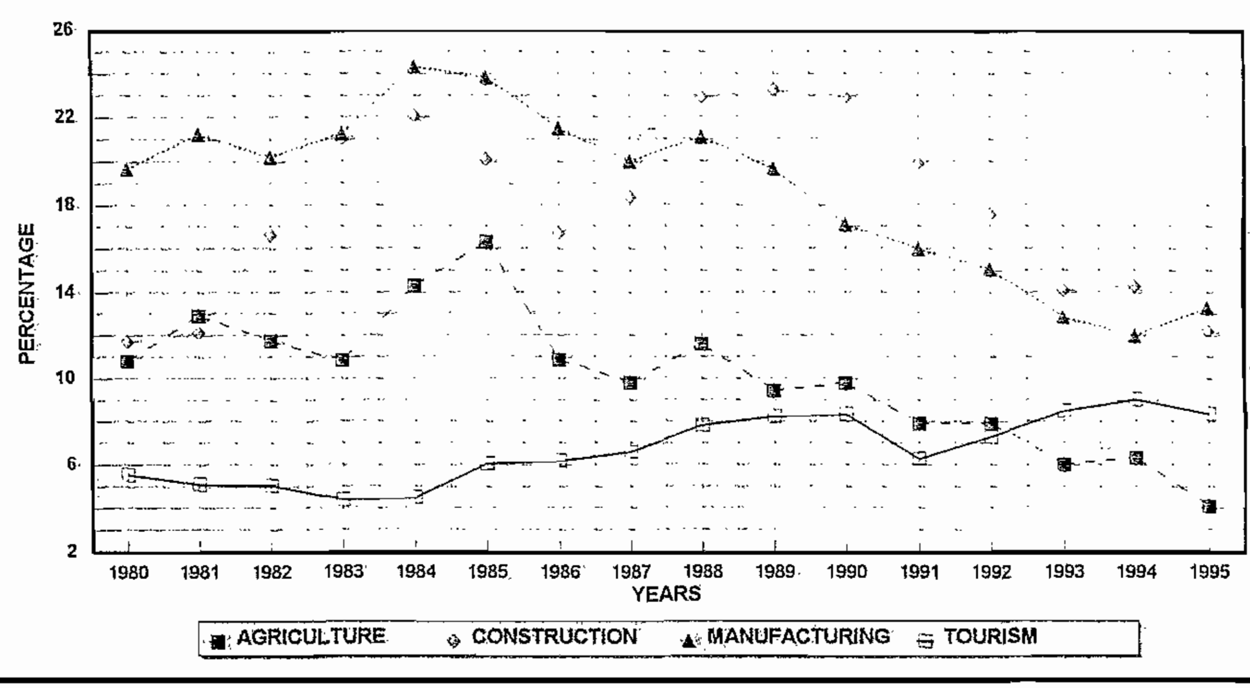


Figure 8
Productive Sectors Share of Total Commercial Banks Credit



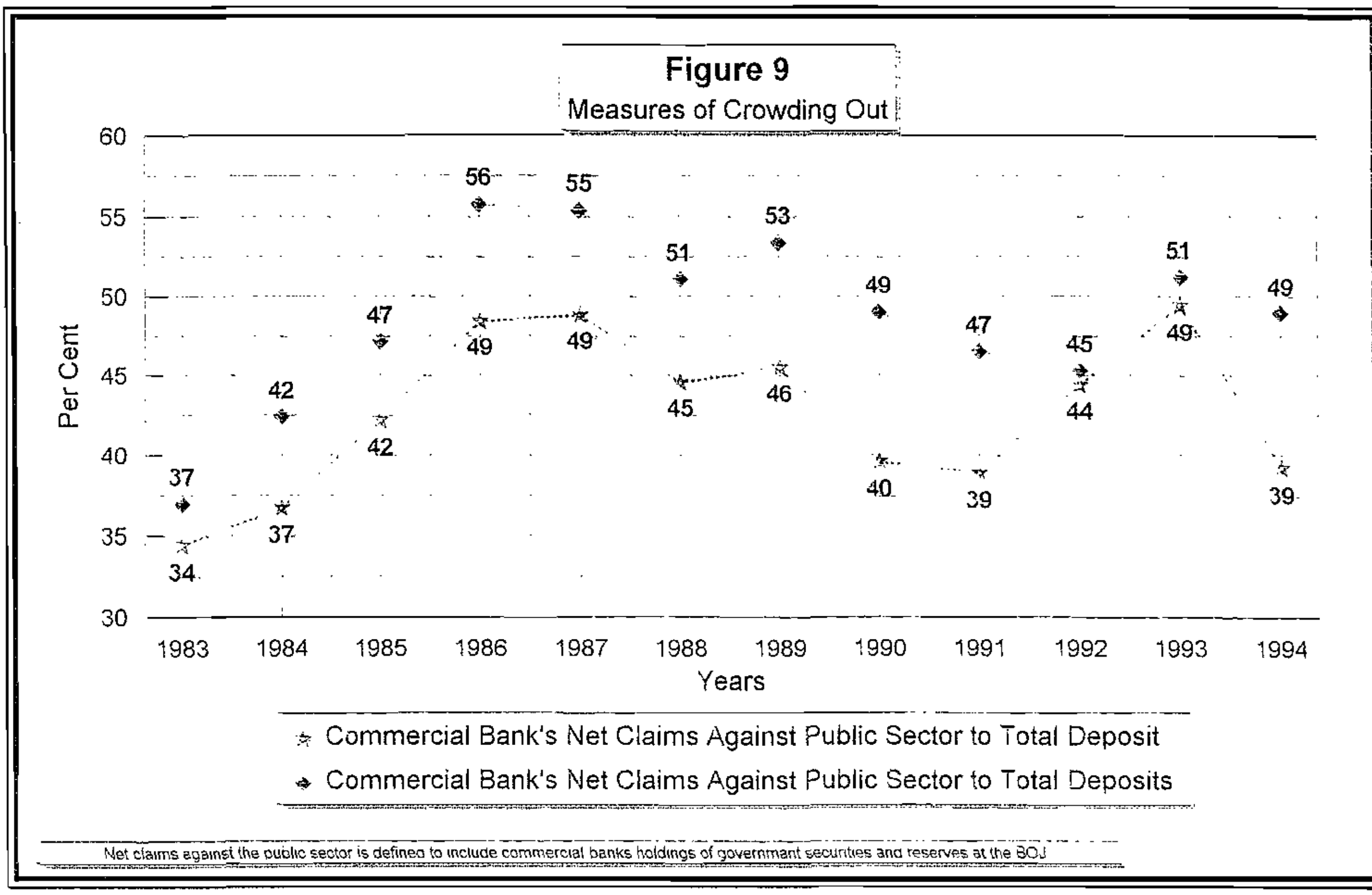


Figure 9
Measures of Crowding Out
60
55
50
45
40
35
30
Per Cent
56
55
53
51
51
49
49
47
47
45
42
42
49
49
45
46
44
49
37
37
34
40
39
39
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
Years
Commercial Bank's Net Claims Against Public Sector to Total Deposit
Commercial Bank's Net Claims Against Public Sector to Total Deposits
Net claims against the public sector is defined to include commercial banks holdings of government securities and reserves at the BOJ

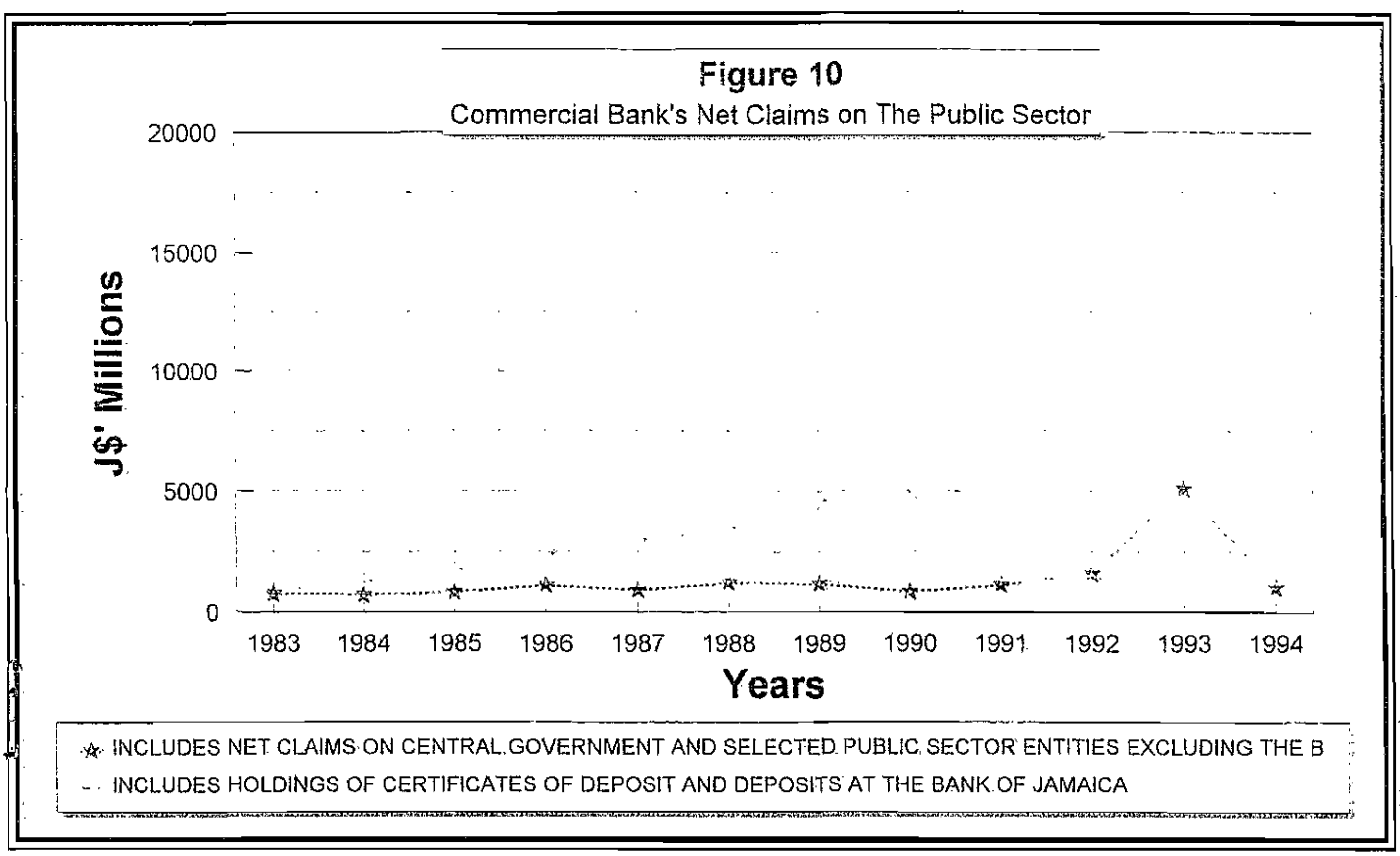


Figure 10
Commercial Bank's Net Claims on The Public Sector
20000
15000
10000
5000
0
J$' Millions
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
Years
INCLUDES NET CLAIMS ON CENTRAL GOVERNMENT AND SELECTED PUBLIC SECTOR ENTITIES EXCLUDING THE B
INCLUDES HOLDINGS OF CERTIFICATES OF DEPOSIT AND DEPOSITS AT THE BANK OF JAMAICA

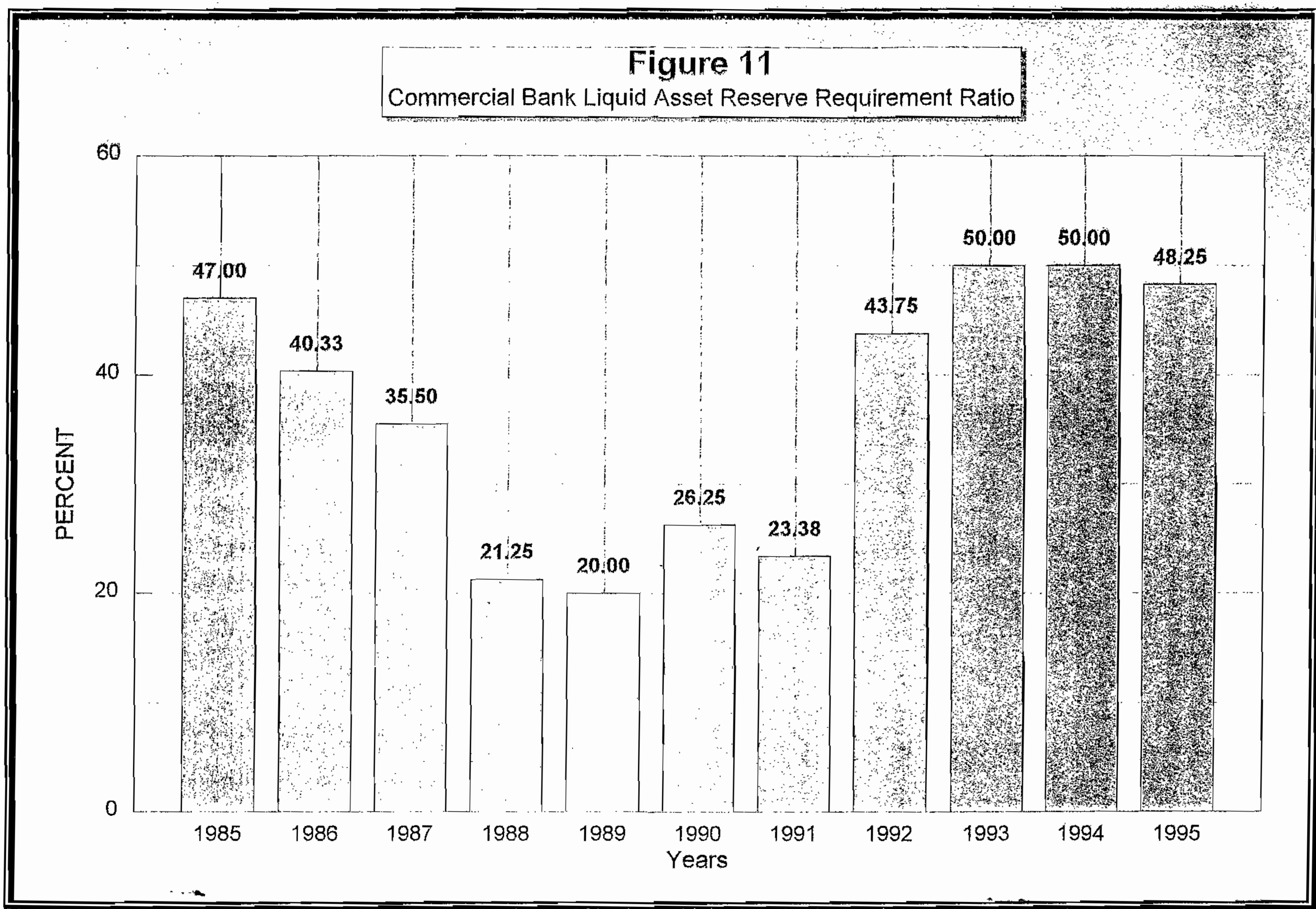


Figure 11
Commercial Bank Liquid Asset Reserve Requirement Ratio
PERCENT
60
40
20
0
47.00
40.33
35.50
21.25
20.00
26.25
23.38
43.75
50.00
50.00
48.25
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
Years